

layer covering the feature such that the metal can be deposited on the different portions of the seed layer 15 on the substrate (including within the feature), as described below. In FIG. 3, reference character 312 shows one embodiment of step 2 current. Step 2 is performed with the seed layer 15 of the substrate having a negative bias voltage ranging from 2 to 10 volts relative to the anode (one embodiment uses 5 volts). As indicated by the equation above, 5 volts applied between the seed layer and the anode results in an approximate plating direct current of 5.41 amps for a 200mm diameter substrate. The 5.41 amp value applied for a substrate that is completely immersed in the electrolyte solution and the current has stabilized following ramping. The duration of step 1 is effected by the electric current ramping rate of the substrate being inserted into the electrolyte solution. Step 2 combined with step 1 typically lasts from 1/4 to 2 seconds, and not more than 5 seconds.

**IN THE CLAIMS:**

Please cancel claims 1-31 without prejudice.

Please add the following new claims:

- 32. A method of depositing a metal on a substrate having one or more features formed thereon, comprising:

- depositing a seed layer over the substrate and the one or more features;
- applying a first biasing voltage to the seed layer while immersing the substrate into an electrolyte solution contained in an electrolyte container comprising an anode immersed in the electrolyte solution;
- applying a second biasing voltage to the seed layer following immersion, the second biasing voltage being higher than the first biasing voltage; and
- applying a pulsed biasing voltage to the seed layer, the pulsed biasing voltage being lower than the second biasing voltage.